



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD, CHICAGO, ILLINOIS 60604

US EPA RECORDS CENTER REGION 5



487458

September 29, 2014

Ken Rose, PE, PG
Director of Engineering & Environmental Services
OmniTRAX, Inc., 252 Clayton St., 3rd Floor, Denver, CO 80206

Dear Mr. Rose,

U.S. EPA has reviewed the August 21, 2014 CDM Smith Letter *Response to U.S. EPA Comments dated July 22, 2014*, in regards to the Site Investigation Report dated May 2014 for the Illinois Railway (IR) Property in Wedron, Illinois. Listed below is U.S. EPA's response to this Letter. In addition, comments on the Site Investigation Report were received from IEPA that are included in this letter.

Comments CDM Smith Letter *Response to U.S. EPA Comments dated July 22, 2014*

2R. Response:

U.S. EPA did not direct CDM Smith to place the well in a specific location. Our initial comment was the a well be placed due east of AP-01 in east of the right-of-way, then 50 feet north sliding east to keep in the right of way.

Response 6R- The response states that a revised report will be provided with the data validation results and a statement about the usability of the data. This report has not yet been submitted to U.S. EPA for review.

Response 9R – A few comments about this response are as follows:

- The following statement in this response appears incorrect: "Analytical results from soil samples collected at depths below 12 feet bgs indicate detected BTEX concentrations in the range of 51,000 to 490,000 ug/kg (ethylbenzene in soil sample locations GP-1, -2, -3, -4, -11, WGS-GP05)."
 - Benzene, toluene, ethylbenzene, and xylene (BTEX) concentrations above Class 1 Groundwater Soil Remediation Objectives (SRO) ranged from 39,000 to 1,700,000 micrograms per kilogram (ug/kg).
 - Ethylbenzene concentrations above Class 1 Groundwater SROs range from 51,000 to 440,000 ug/kg.

6 Insert Western Split Samples into the report.

Noted
Signed by
C. Smith

- When reviewing this comment, it was noted that Figure 4 of the report is missing the ethylbenzene result of 51 milligrams per kilogram (mg/kg) for GP-04B(12-14). This should be corrected on Figure 4.
- Response 9R states that IR believes that the contamination on this property is from a larger offsite source because the soil in the area of the remediated underground storage tanks (UST) was lower in BTEX concentrations than the soil samples collected during the site investigation. This statement is incorrect. Samples were collected from the soil beneath the underground storage tanks after the areas were excavated. The soil from around and under the UST's was over excavated and the soil was hauled off site for disposal as a special waste because of the high levels of volatile organic compounds. Illinois Railway reported this to the IEPA as a leaking Underground Storage Tank and site ID was assigned to the case.

Response 10R – There were 11 instances where benzene was non-detect and the reporting limit was higher than the screening level of 0.03 mg/kg. Of those 11 instances, there were 5 instances where other BTEX compounds exceeded SROs. It is probable that benzene SROs could have been exceeded in some of these samples. It should be noted in the report that due to elevated reporting limits, it could not be discerned if benzene exceeded the SRO for Class I groundwater in some samples.

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SRO*

Response 11R - The conclusions drawn are not supported by the data that has been collected. Based on results in soil on IR's property and groundwater flow to the west, there is a potential that that contaminated soil on IR's property is a contributing source to contamination that existed in the residential wells. Despite the fact that we do not have historical hydraulic information, we do know that residential wells were contaminated above the Maximum Contaminant Level (MCL) for benzene in January 2013. Current (April 2014) and past groundwater contour maps (June 2013) show groundwater flow to be primarily towards Pit3 which is to the west.

An evaluation of the analytical results indicates that higher BTEX results have been detected in soil and groundwater on IR property (with the exception of xylenes in groundwater). This evaluation was based on all data compiled since 2012.

Response 12R – Additional investigation may be warranted in the future by IR for an extent of contamination study for soil remediation and as indicated in the additional comments on the Site Investigation Report below.

Additional Comments Received from IEPA on Site Investigation Report

1. **Page ES-2 and Page 1-2:** "One (1) groundwater monitoring well was installed to an approximate depth of 18.5 feet at the furthest east location within the WS area." Neither the well number nor location are provided, so it is not possible to see where the well was/is (whether it was east or west of the apparent groundwater divide that has been detected near the river). No contaminants were apparently found in the well. Depending on where the well was drilled, the depth to the St Peter aquifer has been found to be about

20 feet, so the well was likely not screened in St. Peter—the aquifer being used by the Wedron residents.

2. **Appendix A:** If the IR wells were screened at the bottom of these borings (as the well diagrams indicate), it does not appear they are monitoring the St Peter aquifer, since they stop in the top of the bedrock. No groundwater has been found at the top of the St. Peter sandstone. The wells are most likely collecting seasonally perched water above the St Peter water table. Jim Salch saw perched water in some of his borings on the adjacent Hoxsey site in May 2013. That would explain why the groundwater elevation of 507.13' at MW-15 on April 17 is over five feet higher than that in the nearby IEPA well IMW-101 (501.87'). It is doubtful seasonal variation accounts for that much difference. The bottoms of the screens in wells MW-13 and MW-14 are higher than the tops of the screens in the wells installed on the adjacent Hoxsey property. The shallowest elevation measurement for the water table in the St. Peter was 501.87 feet on the Hoxsey property, about the same elevation as the bottoms of the screens in wells MW-12, MW-13 and MW-15. If in fact the wells are screened in perched zones, they may (or may not) pick up contamination, but they are not telling us what is going on in the St Peter, and they are not monitoring the zone the residents are using.

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3. **Page 1-2 and Figure 5:** The well locations do not coincide with the locations of highest soil contamination in borings. Locations do not appear adequate to assess conditions where soil contamination appears to be highest. Wells MW-12 and MW-15 are outside the study area. A well is needed approximately 100-200 feet east of boring GP-04 to assess conditions east of Weston well MW-101, which is highly contaminated. It appears based on current information that groundwater contamination on the Hoxsey property is most likely coming from the east (up gradient). A well there is needed to answer questions about the source of that contamination, and it will also provide more data on groundwater flow direction.

4. **Page 1-2 and Page 3-1:** A recorded deed restriction will be required if industrial/commercial soil remediation objectives are being used to assess site conditions and drive decisions regarding remediation.

5. **Section 3 and Tables:** The method detection limit (MDL) for benzene exceeds the soil migration to Class I groundwater (the proper classification) remediation objective in at least six borings (eight samples). The reason stated was high concentrations of other target compounds, but that was not the case in four of the samples. This data does not adequately assess benzene concentrations. Benzene should be considered to exceed the remediation objectives based on this data.

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6. **Section 3 and Appendix A:**

- a. There was very little discussion of the boring logs. Faint to strong odors were detected in 9 of 11 borings. Staining was recorded in 9 of 11 borings. High PID readings (several hundred up to several thousand meter units) were observed in 9 of 11 borings. A reading of 8,239 units was recorded in GP-02 at a depth of 15

→ EPP
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Sample

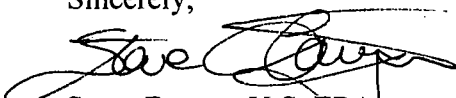
feet. 1700 mg/kg xylenes and 440 mg/kg ethylbenzene were detected in a sample from a depth of 16'-18' in GP-02. The MDL for benzene in that sample was 1.3 mg/kg (vs a remediation objective of 0.03 mg/kg), leaving the assumption that benzene exceeded the SRO.

- b. No PID readings were provided for the bottom several feet in borings GP-01 through GP-09. For several of those borings, the PID value for the deepest measurements provided was over 499 meter units.
7. The analytical results of groundwater samples from Illinois EPA monitoring well IMW-101, GP-108 and GP-109 indicate that BTEX concentrations are higher in the St. Peter Sandstone aquifer than concentrations from perched water obtained from unconsolidated materials located at the top of the St. Peter Sandstone formation. PID readings from CDM Smith borings GP-01, GP-02, GP-103 and GP-11 have similar patterns to those found at Illinois EPA soil boring locations GP-108 and GP-109, indicating impacts from petroleum compounds. In addition, benzene and ethylbenzene were detected above the Illinois EPA Class I groundwater standard in perched water at the top of the St. Peter Sandstone at CDM Smith well MW-15. For these reasons, the Illinois EPA suggests that monitoring wells should be installed in these areas to assess impacts to the St. Peter Sandstone aquifer utilized as a potable water supply. Installation depths should be similar to that of Illinois EPA well IMW-101 to insure that the wells are installed within the St. Peter Sandstone aquifer. Monitoring wells within the St. Peter Sandstone aquifer can be used to obtain groundwater samples, potentiometric surface readings and hydraulic conductivity information necessary to assess the groundwater contamination condition in Wedron. Groundwater elevations and hydraulic conductivities from the St. Peter Sandstone aquifer could also be compared to the same from wells installed in the unconsolidated material at the top of the St. Peter Sandstone formation.

In a September 26, 2014 email to me, you stated that IR intends to finalize the May 2014 *Site Investigation Report* and incorporate the July 22, 2014 U.S. EPA comments and the August 21, 2014 IR response to U.S. EPA's comments. You further stated that IR does not feel that further investigation on IR property is warranted, and that IR intends to request that U.S. EPA terminate the administrative order on consent (AOC). In addition to our comments outlined above, the conclusions drawn by IR regarding contamination on its property are not supported by the data collected. Furthermore, the technical data collected to date at the IR property demonstrates a need for IR to conduct additional investigation work.

U.S. EPA looks forward to setting up a meeting or conference call to discuss these comments and follow up investigation work. Please contact me as soon as possible to schedule this meeting.

Sincerely,


Steve Faryan, U.S. EPA
On-Scene Coordinator
Emergency Response Branch
312-353-9351

→ JREK ~~Fuller~~
conducting dust
Clean-Up

cc: Christopher Albrecht, CDM Smith

Meeting w/ III RR

11/6/14

Main topics to discuss

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